



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200

# Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Agin Day
PO040082	ACI001-VC	1	1	Net 30	M1018R4.250	1018-1025 Round Bar MATERIAL: AISI 1018-1025 ROUND BAR SPECIFICATION: MIL-S-7097 OR ASTM A108				4	6/8/2018	4		S079411	Stock	6/8/2018	\$ 142.50 / ft	
		2			M1018B0.750X0.750 <i>ASTM</i>	1010-1025 Steel Bar .750 X .750 : MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft				12		12		S079412	Stock	6/8/2018	\$ 2.96 / ft	
		3			M1018B0.500X0.500 <i>ASTM</i>	1010-1025 Steel Bar .500 X .500 : MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft						12		S079413	Stock	6/8/2018	\$ 1.32 / ft	
		4			MT-Q1-B 0.250X3.000 <i>ASTM</i>	Tool Steel Bar 0.250" X 3.000" MATERIAL: AISI 01 TOOL STEEL BAR DIN 1.2510 or B.S. BO 1 or SAE J437 or SAE J438 or UNS T31501 or ASTM A681				3		12		S079414	Stock	6/8/2018	\$ 116.00 / ft	
Total:										31		40						

Plex 6/8/2018 1:52 PM Dart.Dubois.Pascal



## DELIVERY - CLIENT

CO00092875

### ACIER OUELLETTE INC.

935, Boul. du Hâvre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N°

CL10001056

Date

2018/06/01

Delivery date

2018/06/07

Your order N°

40082

### Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

### Shipped to

, Ontario,

Att: CHANTAL LAVOIE Tél.: 613-632-5200

Processed by  
Salesman

Eric Kaehlert

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Instruction F-M

Delivery Route 5

Page

1

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 ROUND CR 4 1/4 1018 NS RCR-414 10976 1 X 4' LINE#1 AC16951-GR-2018-06-06 Heat: 8171649	192.92	4.00	PI		14 4'		4'				JUN 08 2018 DAS 11 9-89
2 SQUARE CR 3/4 1018 (R) CCR-34 1826 1 X 12' RL LINE#2 Heat: 400805	22.92	12.00	PL \$CLB		1x 12'		12'				JUN 08 2018 DAS 11 9-89

NIR : R-109516-6

Next Page...



## DELIVERY - CLIENT

CO00092875

### ACIER OUELLETTE INC.

935, Boul. du Hâvre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mt: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mt: 514-336-4246 Ext.: 866-456-4242

### Billed to

DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

### Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Delivery Route 5

Page 2

Customer No

CL10001056

Date

2018/06/01

Delivery date

2018/06/07

Your order N°

40082

Processed by

Eric Kaehlert

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
3 SQUARE CR 1/2 1018 (R) CCR-12 1 X 12' RL LINE# 3 Heat: 42008	10.20	12.00	PL \$CLB		17 12' 11"		12'				DAS 11 9-89 JUN 08 2018
4 FLAT GRD STOCK 01 1/4 X 3 NS FOI-143 4 X 3' LINE#4 AC16948-VA-2018-04-06 Heat: Typique	30.60	12.00	PI		48 3'		12'				DAS 11 9-89 JUN 08 2018

NIR : R-109516-6

Next Page...





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## PO040082

**Supplier:** ACI001-VC  
Acier Ouellette Inc.  
935 Boul. Du Havre  
Valleyfield  
QC  
J6S 5L1 Canada  
Phone: 800 667 4248  
Fax: 450 377 5696

**PO No:** PO040082  
**PO Date:** 6/1/18  
**Due Date:** 6/8/18  
**Purchase Order**  
**Revision:**  
**Revision Date:**  
**Ship-To Contact:** Phone:

**E-MAILED**  
JUN 01 2018

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pynt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:** quote no. sou0110129

### Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M1018R4.250		1018-1025 Round Bar MATERIAL: AISI 1018- 1025 ROUND BAR SPECIFICATION: MIL-S- 7097 OR ASTM A108	Firmed	6/8/18	4 ft	0 ft	4 ft	\$142.50/ft	\$570.00
2	M1018B0.750X0.750		1010-1025 Steel Bar .750 X .750 : MATERIAL: AISI 1010- 1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft	Firmed	6/8/18	12 ft	0 ft	12 ft	\$2.9608333/ft	\$35.53
3	M1018B0.500X0.500		1010-1025 Steel Bar .500 X .500 : MATERIAL: AISI 1010- 1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft	Firmed	6/8/18	12 ft	0 ft	12 ft	\$1.3175/ft	\$15.81
4	MT-O1-B- 0.250X3.000		Tool Steel Bar 0.250" X 3.000"  MATERIAL: AISI 01 TOOL STEEL BAR DIN 1.2510 or B.S. BO 1 or SAE J437 or SAE J438 or UNS T31501 or ASTM A681	Firmed	6/8/18	3 ft	0 ft	3 ft	\$116.00/ft	\$348.00

**Grand Total:** \$969.34

### Order Notes

## Order Notes

## Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

*Plex 6/1/18 12:38 PM dart.lavoie.chantal*

Date : \_\_\_\_\_ **Total (\$CAD)** **1 099.82**



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018 Bd. 500x0.500  
 DATE: JUN 08 2018

PO / BATCH NO.: 040082/579413

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500  
 THICKNESS RECEIVED: 0.500  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<u>(N)</u>	
CORRECT FINISH	<u>(Y)</u>	N	
CORROSION	Y	<u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u>	N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u>	N	<u>use for dent tooling only</u>
CORRECT THICKNESS	<u>(Y)</u>	N	
PHOTO REQUIRED	Y	<u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u>	N	<u>Heat # 42008</u>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u>	N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<u>(N)</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>DAS 11</u>	<u>PD 18-06-14</u>	SIGNED OFF BY: _____	
DATE: <u>9-89 JUN 08 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in





DESIGN 	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. M1010-B	REV. A SHEET 1 OF 1
DATE 01.12.06		TITLE AISI 1010-1025 BAR	
A	01.12.06	NEW ISSUE	

PURCHASE MATERIAL: AISI 1010-1025 OR ASTM A36 / A366 / A569 / A570  
OR CSA G40-21, 38W/44W/50W/60W/70W

PART NUMBER: M1010-B | T.TTT | x | WW.WWW | WHERE T.TTT = THICKNESS (IN INCHES)  
THICK WIDTH WW.WWW = WIDTH (IN INCHES)  
EG. 0.75" x 2.50" BAR = M1010-B0.750 x 02.500

RELEASED  
01.12.07

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018 B 0.750X0.750

PO / BATCH NO.: 040082/5079412

DATE: JUN 08 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750  
 THICKNESS RECEIVED: 0.750  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	use for dart tooling only PD.
CORRECT THICKNESS	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	Heat # 40080
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> <u>PD 18.06.14</u>	SIGNED OFF BY: _____	
DATE: <u>9-89 JUN 08 2018</u>	DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



DESIGN 	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. M1010-B	REV. A SHEET 1 OF 1
DATE 01.12.06		TITLE AISI 1010-1025 BAR	SCALE NTS
A	01.12.06	NEW ISSUE	

PURCHASE MATERIAL: AISI 1010-1025 OR ASTM A36 / A366 / A569 / A570  
OR CSA G40-21, 38W / 44W / 50W / 60W / 70W

PART NUMBER: M1010-B | T.TTT | x | WW.WWW | WHERE T.TTT = THICKNESS (IN INCHES)  
THICK WIDTH WW.WWW = WIDTH (IN INCHES)  
EG. 0.75" x 2.50" BAR = M1010-B0.750 x 02.500

RELEASED  
01.12.07

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018R4.250  
DATE: JUN 08 2018

PO / BATCH NO.: 040082/5079411

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 4'  
QUANTITY INSPECTED: 4'  
QUANTITY REJECTED: 0

THICKNESS ORDERED: 4.250  
THICKNESS RECEIVED: 4.250  
SHEET SIZE ORDERED: N/A  
SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	Astm A108
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	Heat # 8171649
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> DATE: <u>11 JUN 08 2018</u> <u>9-89</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 1018-1025 ROUND BAR

SPECIFICATION: MIL-S-7097 OR ASTM A108

PART NUMBER: M1018-R/D DDD WHERE D, DDD = DIAMETER IN INCHES  
DIA.

EG. 7/8" ROUND BAR = M1018-R0.875

TOLERANCES: PER ASTM A108 AS FOLLOWS:

SIZE	TOLERANCE
UP TO 1.5" INCL.	+0.000/-0.002
OVER 1.5" TO 2.5" INCL.	+0.000/-0.003
OVER 2.5" TO 4.0" INCL.	+0.000/-0.004
OVER 4.0" TO 6.0" INCL.	+0.000/-0.005
OVER 6.0" TO 8.0" INCL.	+0.000/-0.006

RELEASED  
2012-09-24

B	REFORMAT, ADD ASTM A108, ADD TOLERANCES	CP	12.09.05
A	NEW ISSUE	DS	01.06.12
REV.	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	CP		
CHECKED	CP		
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	12.09.05		
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. M1018-R TITLE 1018-1025 ROUND BAR REV. B SHEET 1 OF 1 SCALE NTS COPYRIGHT © 2011 BY DART AEROSPACE LTD. <small>ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING.</small>			



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 44-01-B-0.250x3w00

PO / BATCH NO: 040082/5079414

DATE: JUN 08 2018

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.250  
 THICKNESS RECEIVED: 0.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	0-1
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	Heat # typique
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u>		SIGNED OFF BY: _____	
DATE: <u>9-89 JUN 08 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

8 7 6 5 4 3 2 1

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI O1 TOOL STEEL BAR  
DIN 1.2510 or B.S. BQ 1 or  
SAE J437 or SAE J438  
or UNS T31501 or ASTM A681

SPECIFICATION:

PART NUMBER: MT-O1-B-[H.HH]x[W.WWW]  
WHERE "H.HH" = HEIGHT IN INCHES  
WHERE "W.WWW" = WIDTH IN INCHES  
EG. 4"x6" BAR = MT-O1-B-4.000x6.000

TOLERANCES PER MANUFACTURER SPECIFICATIONS

REV.	DESCRIPTION	DATE	BY	APPROVED
A	NEW ISSUE	17.08.09	VM	WM

<b>DART</b> AEROSPACE		HAMMERSLEY, OTTAWA, CANADA	
TITLE <b>AISI O1 TOOL STEEL BAR</b>			
DWS NO.		REV	
DESIGN BY: VM 8/9/2017		MT-O1-B	
DRAWN BY: SAC 09/07/2017		A	
CHECKED: VM 09/07/2017		1. DIMENSIONS ARE IN INCHES	
MFG. APPR: DP 09/07/2017		2. INTERPRET DIM AND TOL PER	
QA APPR: PD 09/09/2017		3. ASME Y14.5M-2009	
APPROVED: VM 09/12/2017		4. DIMENSIONS SHALL	
DATE: 9/7/2017		AFTER PLATING	
SCALE: NTS (WEIGHT) N/A LBS		SHEET 1 OF 1	
COPYRIGHT © 2017 BY DART AEROSPACE LTD			
THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT WRITTEN PERMISSION BY DART AEROSPACE LTD.			

EW17-149

8 7 6 5 4 3 2 1





ARANA Y LUPARDO, 2  
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)  
Tfno.: 946480211  
Fax: 946480128  
Email: calpradera@calibradospradera.es  
www.calibradospradera.es

## CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 47192

ALBARAN 47192  
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE  
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

				% C	% Cr	% Cu	% Mn	% Mo	% Ni	% P	% Pb	% S	% Si
31,75	0,00	138964	41378 G	0,170	0,050	0,146	0,630	0,011	0,084	0,009	0,000	0,009	0,165
31,75	0,00	139049	41378 G	0,170	0,050	0,146	0,630	0,011	0,084	0,009	0,000	0,009	0,165
9,53	0,00	202340	41113 AA*	0,079	0,027	0,016	1,097	0,004	0,019	0,056	0,276	0,279	0,022
25,40	0,00	202179	40463 S	0,073	0,058	0,012	1,090	0,005	0,020	0,068	0,252	0,302	0,005
15,88	0,00	916391	40619 AA	0,150	0,000	0,000	0,775	0,000	0,000	0,013	0,000	0,027	0,157
19,05	0,00	915992	40080 S	0,165	0,000	0,000	0,780	0,000	0,000	0,009	0,000	0,024	0,274
25,40	0,00	916469	41198 G	0,160	0,000	0,000	0,630	0,000	0,000	0,007	0,000	0,010	0,136
31,75	0,00	139168	41378 G	0,170	0,050	0,146	0,630	0,011	0,084	0,009	0,000	0,009	0,165

Características mecánicas / Mechanical properties

MEDIDA Measurement	OF	COLADA Cast Nr.	Resistencia Tens. strenght N/mm2	Lím.elástico Yield point 0,2% N/mm2	Alargamiento Elongation Lo=50 mm.	Dureza HB Hardness HB	Estricción %	
11,11		908989	29708 G	628,75	591,11	16,94	190,00	62,76
25,40		916007	40655 G	586,71	565,37	21,86	176,00	57,70
		916018	40545 G	586,33	574,71	19,72	176,00	58,62
		916469	41198 G	614,68	599,18	22,76	180,00	56,57
25,40		202179	40463 S	521,37	485,79	25,34	153,00	49,11
22,23		915964	40717 G	625,03	599,51	24,20	185,00	55,97
31,75		138699	41378 G	586,30	560,30	24,30	176,00	58,56
23,81		915312	37291 A	619,20	609,49	22,34	185,00	55,46
15,88		915991	40639 S	585,04	539,10	15,16	180,00	56,61
31,75		138956	41378 G	586,30	560,30	24,30	176,00	58,56
19,05		915992	40080 S	530,32	510,28	34,50	162,00	62,99
15,88		916391	40619 AA	579,16	547,66	19,70	169,00	58,82
28,58		916104	40910 G	568,80	546,30	32,76	169,00	59,00
31,75		138948	41378 G	586,30	560,30	24,30	176,00	58,56
9,53		915990	40828 G	783,23	761,48	10,92	247,00	0,00
31,75		138964	41378 G	586,30	560,30	24,30	176,00	58,56
31,75		139049	41378 G	586,30	560,30	24,30	176,00	58,56
9,53		202340	41113 AA*	602,60	585,60	14,04	180,00	51,75
25,40		202179	40463 S	521,37	485,79	25,34	153,00	49,11
15,88		916391	40619 AA	579,16	547,66	19,70	169,00	58,82
19,05		915992	40080 S	530,32	510,28	34,50	162,00	62,99
25,40		916469	41198 G	614,68	599,18	22,76	180,00	56,57
31,75		139168	41378 G	586,30	560,30	24,30	176,00	58,56

Calidad Superficial



ARANA Y LUPARDO, 2  
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)  
Tfno.: 946480211  
Fax: 946480128  
Email: calpradera@calibradospradera.es  
www.calibradospradera.es

## CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 47192

ALBARAN 47192

Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE  
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

DESCRIPCIÓN Description	OF	Clase EN 10277-1
1018 RED. ESTIRADO 11,11 (7/16")	908989	2
1018 RED. ESTIRADO 25,40 (1")	916007	2
1018 RED. ESTIRADO 25,40 (1")	916018	2
1018 RED. ESTIRADO 25,40 (1")	916469	2
12L14 HEX. ESTIRADO 25,40 (1")	202179	1
1018 RED. ESTIRADO 22,23 (7/8")	915964	2
1018 RED. ESTIRADO 31,75 (1 1/4")	138699	3
1018 RED. ESTIRADO 23,81 (15/16")	915312	2
1018 RED. ESTIRADO 31,75 (1 1/4")	138956	3
1018 RED. ESTIRADO 15,88 (5/8")	916391	2
1018 RED. ESTIRADO 28,58 (1 1/8")	916104	2
1018 RED. ESTIRADO 31,75 (1 1/4")	138948	3
1018 RED. ESTIRADO 31,75 (1 1/4")	138964	3
1018 RED. ESTIRADO 31,75 (1 1/4")	139049	3
12L14 RED. ESTIRADO 9,53 (3/8")	202340	3
12L14 HEX. ESTIRADO 25,40 (1")	202179	1
1018 RED. ESTIRADO 15,88 (5/8")	916391	2
1018 RED. ESTIRADO 25,40 (1")	916469	2
1018 RED. ESTIRADO 31,75 (1 1/4")	139168	3

Observaciones: BARRAS DE ACERO ESTIRADAS EN FRIO SIN ALEAR

DEPARTAMENTO DE CALIDAD: Certifica que el mencionado producto cumple con las especificaciones del pedido.  
QUALITY DEPARTMENT: Certify that the product fulfils the order specifications.

Fecha/Date: 08/05/2017

Firmado: Susana Fernández  
Directora de Calidad



Sistema de  
Gestión  
ISO 9001:2008  
www.tuv.com



92875

Dent.

16951N.

CERTIFICATE OF COMPLIANCE / CERTIFICAT DE CONFORMITÉ							
No. de commande / order #	CLIENT / CUSTOMER				No. d'expédition/packing slip #		DATE
No. de commande / order #	CLIENT / CUSTOMER				No. d'expédition/packing slip #		DATE
					D32230		JAN-30-14
NO. DU MATÉRIEL / LD. #	NUANCE / GRADE	TRAITEMENT THERMIQUE / HEAT TREATMENT				COULÉE / HEAT #	
2013-1550	C1018	COLD FINISHED / FINI À FROID				8171649	
FORME / SHAPE	DIMENSION / SIZE		SPÉCIFICATIONS				
Round / Rond	4.250" in.		ASTM A108-07				
PAYS D'ORIGINE:	USA						
ANALYSE CHIMIQUE / CHEMICAL COMPOSITION							
	Carbon (C)		Silicon (Si)		Manganese (Mn)		Phosphorus (P)
min/max	0.150	0.200	0.100	0.200	0.800	0.900	0.040
actuel (%)	0.170		0.200		0.690		0.007
	Sulfur (S)		Chromium (Cr)		Nickel (Ni)		Molybdenum (Mo)
min/max	0.050		0.009	0.200	0.600	0.250	0.000 0.060
actuel (%)	0.028		0.070		0.060		0.020
	Copper (Cu)		Vanadium (V)		Aluminium (Al)		Tungsten (W)
min/max	0.000	0.950	—	—	—	—	—
actuel (%)	0.080		0.001		0.022		0.000

PROPRIÉTÉS MÉCANIQUES / MECHANICAL PROPERTIES				
Tolérance diamètre / diameter	Résistance à la traction / Tensile	Alongement / Elongation (%)	Réduction surface / ratio	Surface HD/dureté
0	PSI		0.0	

Aucune réparation exécutée par soudure durant la fabrication de ce produit. Par la présente nous attestons que les résultats ci-haut mentionnés ont été vérifiés et sont conformes aux spécifications.

No weld repairs performed during the manufacturing of this product. We hereby certify that the above results have been verified and conform to the above mentioned specifications.

Keith BALL

Vanguard

4 1/4"

CR1018

11/14/14



# 1826

CCR-34-V

TNA-1595

15/8/17

49679



ARANA Y LUPARDO, 2  
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)  
Tfno.: 946480211  
Fax: 946480128  
Email: calpradera@calibradospradera.es  
www.calibradospradera.es

## CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 47192

ALBARAN 47192  
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE  
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

PRODUCTO SOLICITADO / PRODUCT ACCORDING ASTM A108

Identificación Identification	Producto Product	ESPE- ESPE	Ref. EN Ref. EN	Ref. DIN Ref. DIN	Ref. ASTM Ref. ASTM
PAJ-47267	1018 RED. ESTIRADO 11,11 (7/16")	832	-0,051	908989	11,11
CA-46387	1018 RED. ESTIRADO 25,40 (1")	732	-0,051	916007	25,40
CA-46387	1018 RED. ESTIRADO 25,40 (1")	548	-0,051	916018	25,40
CA-46387	1018 RED. ESTIRADO 25,40 (1")	998	-0,051	916469	25,40
MJP-47245	12L14 HEX. ESTIRADO 25,40 (1")	976	-0,076	202179	25,40
OU-47424	1018 RED. ESTIRADO 22,23 (7/8")	960	-0,051	915964	22,23
AQM-46896	1018 RED. ESTIRADO 31,75 (1 1/4")	990	-0,051	138699	31,75
OU-47436	1018 RED. ESTIRADO 23,81 (15/16")	820	-0,051	915312	23,81
VI-47383	1018 CUA. ESTIRADO 15,88 (5/8")	996	-0,110	915991	15,88
PAJ-47709	1018 RED. ESTIRADO 31,75 (1 1/4")	958	-0,051	138956	31,75
PAR-47756	1018 CUA. ESTIRADO 19,05 (3/4")	1.000	-0,130	915992	19,05
PAR-47756	1018 RED. ESTIRADO 15,88 (5/8")	1.014	-0,051	916391	15,88
PAR-47756	1018 RED. ESTIRADO 28,58 (1 1/8")	1.006	-0,051	916104	28,58
MJP-47531	1018 RED. ESTIRADO 31,75 (1 1/4")	1.922	-0,051	138948	31,75
PAJ-47709	1018 CUA. ESTIRADO 9,53 (3/8")	982	-0,090	915990	9,53
PAR-47756	1018 RED. ESTIRADO 31,75 (1 1/4")	924	-0,051	138964	31,75
CA-46398	1018 RED. ESTIRADO 31,75 (1 1/4")	960	-0,051	139049	31,75
PAR-47851	12L14 RED. ESTIRADO 9,53 (3/8")	992	-0,051	202340	9,53
PAJ-47738	12L14 HEX. ESTIRADO 25,40 (1")	990	-0,076	202179	25,40
MJP-47861	1018 RED. ESTIRADO 15,88 (5/8")	2.020	-0,051	916391	15,88
OU-47812	1018 CUA. ESTIRADO 19,05 (3/4")	1.002	-0,130	915992	19,05
OU-47812	1018 RED. ESTIRADO 25,40 (1")	1.202	-0,051	916469	25,40
VI-46700	1018 RED. ESTIRADO 31,75 (1 1/4")	1.854	-0,051	139168	31,75

Composición química de la colada / Chemical Analysis of Heat

MEDIDA Measurement	OF	COLADA Cast Nr.	% C	% Cr	% Cu	% Mn	% Mo	% Ni	% P	% Pb	% S	% Si
11,11 0,00	908989	29708 G	0,150	0,000	0,000	0,600	0,000	0,000	0,014	0,000	0,025	0,225
25,40 0,00	916007	40655 G	0,170	0,106	0,231	0,610	0,024	0,111	0,011	0,000	0,016	0,143
	916018	40545 G	0,170	0,106	0,231	0,610	0,024	0,111	0,011	0,000	0,016	0,143
	916469	41198 G	0,160	0,000	0,000	0,630	0,000	0,000	0,007	0,000	0,010	0,136
25,40 0,00	202179	40463 S	0,073	0,058	0,012	1,090	0,005	0,020	0,068	0,252	0,302	0,005
22,23 0,00	915964	40717 G	0,160	0,000	0,000	0,640	0,000	0,000	0,014	0,000	0,008	0,130
31,75 0,00	138699	41378 G	0,170	0,050	0,146	0,630	0,011	0,084	0,009	0,000	0,009	0,165
23,81 0,00	915312	37291 A	0,162	0,000	0,000	0,705	0,000	0,000	0,013	0,000	0,025	0,180
15,88 0,00	915991	40639 S	0,165	0,000	0,000	0,763	0,000	0,000	0,015	0,000	0,021	0,285
31,75 0,00	138956	41378 G	0,170	0,050	0,146	0,630	0,011	0,084	0,009	0,000	0,009	0,165
19,05 0,00	915992	40080 S	0,165	0,000	0,000	0,780	0,000	0,000	0,009	0,000	0,024	0,274
15,88 0,00	916391	40619 A.A	0,150	0,000	0,000	0,775	0,000	0,000	0,013	0,000	0,027	0,157
28,58 0,00	916104	40910 G	0,155	0,000	0,000	0,635	0,000	0,000	0,013	0,000	0,016	0,137
31,75 0,00	138948	41378 G	0,170	0,050	0,146	0,630	0,011	0,084	0,009	0,000	0,009	0,165
9,53 0,00	915990	40828 G	0,140	0,000	0,198	0,760	0,000	0,000	0,016	0,000	0,033	0,242



1806.

CCR-12 50659

TRA-2537



ARANA Y LUPARDO, 2  
48490 UGAO-MRAVALLES/VIZCAYA (SPAIN)  
Tfno.: 946480211  
Fax: 946480128  
Email: calpradera@calibradospradera.es  
www.calibradospradera.es

(2P)

## CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

N° CERTIFICADO / CERTIFICATE NR.: 49249

ALBARAN 49249 Delivery Note Nr.	CLIENTE LES ACIERS TRANSBEC (1997) LTÉE CUSTOMER
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Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

PRODUCTO SOLICITADO / PRODUCT ACCORDING ASTM A108

N° PRODUCTO Purchase Order	DESCRIPCION	TCS	TOL	REMARKS
PAJ-48097	1018 CUA. ESTIRADO 12,70 (1/2")	994	- 0,110	916898 12,70
OU-48310	1018 CUA. ESTIRADO 12,70 (1/2")	988	- 0,110	916898 12,70
OU-48310	1018 RED. ESTIRADO 7,94 (5/16")	1.002	- 0,051	140429 7,94
PAR-48569	12L14 RED. ESTIRADO 15,88 (5/8")	994	- 0,051	140560 15,88
PAJ-48393	1018 CUA. ESTIRADO 12,70 (1/2")	1.972	- 0,110	916898 12,70
PAR-48569	1018 CUA. ESTIRADO 12,70 (1/2")	990	- 0,110	916898 12,70
SM-48509	1018 CUA. ESTIRADO 12,70 (1/2")	986	- 0,110	916898 12,70
PAR-48735	1018 CUA. ESTIRADO 12,70 (1/2")	1.300	- 0,110	916898 12,70
PAR-48735	12L14 RED. ESTIRADO 14,29 (9/16")	988	- 0,051	202401 14,29
PAR-48735	12L14 RED. ESTIRADO 31,75 (1 1/4")	842	- 0,051	202514 31,75
PAR-48735	12L14 RED. ESTIRADO 31,75 (1 1/4")	1.000	- 0,051	202539 31,75
MJP-48737	12L14 HEX. ESTIRADO 25,40 (1")	990	- 0,076	916873 25,40

Composición química de la colada / Chemical Analysis of Heat

MEDIDA Measurement	OF	COLADA Cast Nr.	% C	% Cr	% Cu	% Mn	% Mo	% N	% Ni	% P	% Pb	% S	% Si
12,70 0,00	916898	42008	0,160	0,000	0,276	0,782	0,000	0,000	0,000	0,009	0,000	0,008	0,208
12,70 0,00	916898	42008	0,160	0,000	0,276	0,782	0,000	0,000	0,000	0,009	0,000	0,008	0,208
7,94 0,00	140429	42010 GM	0,160	0,000	0,290	0,710	0,000	0,008	0,000	0,020	0,000	0,016	0,180
15,88 0,00	140560	41826 G	0,066	0,028	0,085	1,125	0,010	0,000	0,033	0,044	0,260	0,304	0,012
12,70 0,00	916898	42008	0,160	0,000	0,276	0,782	0,000	0,000	0,000	0,009	0,000	0,008	0,208
12,70 0,00	916898	42008	0,160	0,000	0,276	0,782	0,000	0,000	0,000	0,009	0,000	0,008	0,208
12,70 0,00	916898	42008	0,160	0,000	0,276	0,782	0,000	0,000	0,000	0,009	0,000	0,008	0,208
12,70 0,00	916898	42008	0,160	0,000	0,276	0,782	0,000	0,000	0,000	0,009	0,000	0,008	0,208
14,29 0,00	202401	41319 OC	0,080	0,016	0,010	1,020	0,002	0,000	0,014	0,058	0,280	0,280	0,002
31,75 0,00	202514	40991 W	0,070	0,140	0,270	1,110	0,030	0,000	0,120	0,052	0,210	0,313	0,020
25,40 0,00	202539	41904 AG	0,080	0,094	0,016	1,100	0,012	0,000	0,026	0,068	0,320	0,300	0,006
	916873	40463 S	0,073	0,058	0,012	1,090	0,005	0,000	0,020	0,068	0,252	0,302	0,005

Características mecánicas / Mechanical properties





ARANA Y LUPARDO, 2  
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)  
Tfno.: 946480211  
Fax: 946480128  
Email: calpradera@calibradospradera.es  
www.calibradospradera.es

TRA 2537

## CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 49249

ALBARAN 49249  
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE  
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

MEDIDA Measurement	OF	COLADA Cast Nr.	Resistencia Tens. strenght N/mm2	Lím.clástico Yield point 0,2% N/mm2	Alargamiento Elongation Lo=50 mm.	Dureza HB Hardness HB	Estricción %
12,70	916898	42008	628,74	580,60	14,70	190,00	58,11
12,70	916898	42008	628,74	580,60	14,70	190,00	58,11
7,94	140429	42010 GM	688,00	633,40	10,22	200,00	61,60
15,88	140560	41826 G	588,93	579,26	11,28	175,00	41,65
12,70	916898	42008	628,74	580,60	14,70	190,00	58,11
12,70	916898	42008	628,74	580,60	14,70	190,00	58,11
12,70	916898	42008	628,74	580,60	14,70	190,00	58,11
12,70	916898	42008	628,74	580,60	14,70	190,00	58,11
14,29	202401	41319 OC	576,87	562,77	13,24	165,00	55,62
31,75	202514	40991 W	545,20	529,60	24,08	200,00	40,07
	202539	41904 AG	561,90	548,20	28,26	180,00	47,30
25,40	916873	40463 S	521,37	485,79	25,34	153,00	49,11

Calidad Superficial

DESCRIPCIÓN Description	OF	Clase EN 10277-1
1018 RED. ESTIRADO 7,94 (5/16")	140429	2
12L14 RED. ESTIRADO 15,88 (5/8")	140560	3
12L14 RED. ESTIRADO 14,29 (9/16")	202401	3
12L14 RED. ESTIRADO 31,75 (1 1/4")	202514	3
12L14 RED. ESTIRADO 31,75 (1 1/4")	202539	3
12L14 HEX. ESTIRADO 25,40 (1")	916873	1

Observaciones: BARRAS DE ACERO ESTIRADAS EN FRIO, SIN ALEAR

DEPARTAMENTO DE CALIDAD: Certifica que el mencionado producto cumple con las especificaciones del pedido.  
QUALITY DEPARTMENT: Certify that the product fulfils the order specifications.

Fecha/Date: 19/10/2017

Firmado: Susana Fernández  
Directora de Calidad

CALIBRADOS PRADERA, S.A.



Sistema de  
Gestión  
ISO 9001:2008

www.tuv.com  
ID 1105000028

92875

16948N

# LETTRE DE CONFORMITÉ CERTIFICATE OF COMPLIANCE

(Material Verification)

Dart

CUSTOMER / CLIENT: ACIER OUELLETTE INC

Customer PO# /

Shipping / Date / d'envoi: 31/05/2018

Commande Client :

AC00016948

Order # / Commande # : L43852-01

COUNTRY OF ORIGIN: U.S.A.

MATERIAL / MATÉRIEL :

O-1

Dimension :

TOUS LES GRANDEURS

Heat # / No Fabrication :

TYPIQUE

Lot # / No de lot :

Specifications Spécifications :

FGS (FLAT GROUND STOCK) / PLATS  
RECTIFIES DE PRECISION

## Chemical / Analyse / Chimique :

C	0.900	Cu	
Mn	1.200	Cb	
Ph		Ta	
Su		V	0.200
Si	0.300	Co	
Cr	0.500	W	0.500
Mo		Autre:	
Ni			

## Mechanical / Propriétés / Mécaniques :

Yield Strength  
Elasticité :


Elongation :

Tensile Strength  
Résistance traction :Reduction ratio  
Corroyage :

Nous certifions que les résultats mentionnés ci-hauts ont été vérifiés et rencontrent les critères voulus.  
We hereby certify that the above results have been verified and conform to the above mentioned specifications.

Date:

28/06/2017

  
 Keith BALL (Branch Manager)

MONTREAL - TORONTO - WINNIPEG - EDMONTON - VANCOUVER